



The sixty-ninth regular quarterly meeting of the Society was held on Saturday evening, August 24th, 1918, in the Board Room of the Mechanics Institute, 57 Post Street, San Francisco, California.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved.

Eleven members responded to roll call, namely: President Van Dyke, Mrs. E. C. Van Dyke, Chas. L. Fox, L. R. Reynolds, J. C. Huguenin, E. P. Van Duzee, F. W. Nunenmacher, Dr. F. E. Blaisdell, Wm. F. Breeze, James E. Cottle, J. O. Graves.

Three guests were in attendance: Mrs. L. R. Reynolds, Mrs. E. P. Van Duzee and Mrs. F. E. Blaisdell.

After the reading of the Treasurer's report, a communication from Dr. F. C. Clark was presented to the members.

Mr. Huguenin stated that he had collected at Fairfax in the summer, and found everything dry; took a specimen of *Omus Californicus* which showed marked variation. Had also collected about San Francisco and in August had taken two specimens of *Pyrameis mulleri* Letcher.

Mr. Nunenmacher reported observations on the habits of the Argentine ant, concerning their relations to a certain species of *Aphis*. In his nursery were a number of young *Pittosporum* plants in pots, it had been observed that some of them did not do as well as the others. On examination it was found that the slow growing plants were troubled by the ants; these had removed all of the dirt from about the roots and were caring for a colony of *Aphis* that infested the roots. When repotting the plants it was seen that the ants gathered up the *Aphis* and carried them to places of safety.

Dr. Van Dyke stated that these observations paralleled those of Mr. Davis, regarding the corn-root *Aphis*. The ants carried the *Aphis* to plants in summer and to their nests in winter; they also protected them from enemies, such as parasites.

Mr. Nunenmacher also remarked that the cottony-cushion scale (*Icerya purchasi*) infested the *Pittosporum* plants, and that these scales were encased in mud houses by the Argentine ant. He reported that his son, who was away on war duty, had seen Mr. Richard Garnett in England. He referred to sections of palms (*Washingtonia filifera*) sent to him from Palm Springs by Mr. Leach which apparently, contained larvae of *Dinapate wrightii*, as there were evidences of activity in the wood, but no imagoes had emerged. Mr. Leach had also observed similar conditions in specimens of palm wood that he

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possessed. Dr. Van Dyke said that there were two emergencies a year—one in spring and another in autumn.

Mr. Reynolds reported the results of his summer's work in central Monterey County, at Big Sur, stating that although the conditions were dry he had secured many good things by sifting.

Mr. Fox said that he spent three days in Mendocino County, and had found the country so dry that he thought it useless to look for butterflies and had returned home. A series of *Satyrus* was secured.

Dr. Van Dyke gave an interesting report of his stay at Cornell University at Ithaca, New York, and of his visit to Boston, Philadelphia and Washington, where he went to study types and important collections of coleoptera, and other facts of moment until his return to Berkeley.

Mr. Huguenin exhibited a series of *Omus californicus* showing variations; a specimen of *Kodiosoma nigra* Stretch, taken at Fairfax in June; a specimen of sphinx, most probably *Arctonotus lucidus* var., two specimens of *Pyrameis mulleri* taken in Oakland and San Francisco in August, and several specimens of *Argynnis*.

Mr. Van Duzee reported that he and Mrs. Van Duzee had taken several short collecting trips during the summer and one longer one to the northern part of the State. Of the shorter trips, two, in April and September, were to Cazadero. The former was perhaps two weeks too early for the best work with beetles, the latter about right for the Hemiptera and Orthoptera. A trip to Sacramento was taken at the end of May when many interesting beetles were found along the Sacramento River including a series of *Notoxus robustus* Casey from under *Convolvulus* growing on the dikes, and on the sandy banks of the American River *Amphicoma cooperi* Horn was abundant flying in the sunshine like bumblebees. At Mt. St. Helena Inn, June 8th to 10th, moths came to light in great abundance from dark until midnight. The month of July was spent in northern California; three days were spent profitably at Redding where insects were abundant in spite of the heat. Two weeks' work was done on the Felch Ranch near Cayton in eastern Shasta County where the Hemiptera work was fairly good but apparently it was several weeks too late for the best work in Coleoptera and Lepidoptera. Here the elevation was about 3,000 feet and the season unusually dry for the time of year. One day was spent about the lumber mills at McCloud where *Melanophila consputa* Lec. was very abundant about the burning refuse dumps. They were excessively active where the heat was so great one could face the fire for but a moment at a time. A week was spent at Sisson where the conditions for collecting were excellent. This included a two days' horse-back

trip to the top of Mt. Eddy, 9,150 feet elevation, where a number of interesting insects were obtained, including a long series of a new species of the Melyriidae. Next a three day stop was made at Coolestin, Oregon, a resort in the Siskiyou Mts., 3,700 feet elevation, where conditions were good for a short stay, and finally one day's work was done at Ashland, Oregon. The whole trip probably would have proved more productive had it been a month earlier.

Mr. Fox showed several transparent mounts of specimens of *Satyrus Argynnis*, and *Lycaena*.

Adjournment and discussion of exhibits.

F. E. BLAISDELL, Secretary.

The seventieth meeting of the Society was omitted on account of influenza epidemic.

The seventy-first meeting of the Society was held on the evening of March 1st, 1919, in the Board Room of the Mechanics Institute, 57 Post Street, San Francisco, California.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved.

The following members responded to roll call: President Van Dyke, Ralph Hopping, F. W. Nunenmacher, E. R. Leach, Prof. C. W. Woodworth, Mrs. E. C. Van Dyke, J. C. Huguenin, E. P. Van Duzee, Dr. F. E. Blaisdell, Wm. F. Breeze.

Guests were in attendance as follows: Mrs. E. P. Van Duzee, Mrs. F. E. Blaisdell, J. O. Martin, G. H. Ferris, Mrs. Ralph Hopping.

After the Treasurer's report was read, there being no business to transact, Prof. Woodworth was requested to give an account of his recent work in China. He said that entomologists were few there. The common insects observed were the house fly (*Musca domestica*), cabbage butterfly (*Pieris rapae*) and *Vanessa antiopa*. Took up mosquito work at Nankin. Described catching Cicadas with a long bamboo pole and a hand line. There were but few house flies in Nankin; in place of them there is a large red-headed blow-fly. This fly is exceedingly abundant and probably is a carrier of the amoebic dysentery. He thought it could be controlled; it breeds in excrement used for fertilizing. An emigration of plant lice was observed that exceeded anything he had ever seen before.

Mr. Nunenmacher said that he had seen in Piedmont, California, large autumnal aphid emigrations.

Mr. Huguenin stated that a butterfly which can be taken every day in the year at San Francisco, is *Pyrameis caryae*. It is common everywhere from north to south. Sometimes a hundred can be seen at a time in our parks. *Pyrameis mulleri* can be taken during every month of the year. The adults feed on any kind of flower; *Escallonia* is the best food plant found in our parks; the second best plant is *Veronica maritima*; the third Heliotrope, the fourth being the *Troximon* about our cities. The larvae feed on *Malva* and hollyhocks (*Althaea rosea*).

Mr. Ferris of Stanford University spoke of certain large fleas taken from the mountain beaver, with exhibition of specimens; also, a rare species of Hemiptera found on bats and most closely related to the bed-bugs. This Polycetenid *Hesperoceteris* is found on *Europs californicus*, a species of bat common in Mexico; it extends northward into southern California.

Mr. Van Duzee spoke on *Plusia* and *Autographa* and exhibited a copy of Beutenmuller's Illustrations of North American species of the genus *Catocala*. He also mentioned that he had taken a hundred specimens of *Scaphinotus striato-*

punctatus from beneath one log in Golden Gate Park during the months of January, February and March.

Dr. Van Dyke remarked that the *Scaphinotus* appear twice a year, the last appearance being about September.

Mr. Leach exhibited a piece of solid alder (*Alnus rubra*) wood full of cylindrical burrows made by a species of larva. In the same wood several specimens of *Trichodesma cristata* Casey with the earlier stages were taken.

Mr. Hopping said that the boring in the alder wood was without doubt the work of the larvae of a Lucanid beetle—*Sinodendron rugosum* Mann.

The question of Field Day was next considered. It was suggested that the next meeting be a Field Day in place of the postponed November meeting. The following committee was appointed to select a desirable locality: Wm. Breeze, chairman, F. W. Nunenmacher and F. E. Blaisdell.

Mr. Van Duzee exhibited two boxes of Peruvian coleoptera recently secured by the California Academy of Sciences; Mr. Huguenin, a specimen of *Carabus Nemoralis* taken in Golden Gate Park, and specimens of *Pyrameis caryae* and *mulleri*, besides two species of *Arctia*.

Mr. Hopping spoke of his trip to New Mexico and Arizona. He took two new species of *Ips*.

Mr. Leach showed a small series of a species of *Meloe* taken in Trinity County; also, specimens of solid wood of the creek alder, riddled with cylindrical burrows, which measured one-fourth of an inch in diameter. The burrows were filled with wood-dust-like castings. These pieces of wood had been kept in a dry store house. After discussion of the exhibits the meeting was adjourned.

F. E. BLAISDELL, Secretary.

The seventy-second meeting or Field Day of the Society was held on May 24th, 1919, at Fairfax Canyon. The day was pleasant, rather hot and a condition of dryness prevailed.

The following members were present: Dr. E. C. Van Dyke, Mrs. E. C. Van Dyke, Dr. J. F. Killeen, F. W. Nunenmacher, Mr. E. P. Van Duzee, Dr. F. E. Blaisdell, Wm. F. Breeze, Winthrop Sargeant, Wolfgang Mautz.

The guests in attendance were: Mrs. E. P. Van Duzee, and Mrs. F. E. Blaisdell.

A number of interesting insects were taken. Dr. Van Dyke found a dead specimen of *Eschatoporis nunenmacheri* Blais., a rare blind Tenebrionid, of which there are only four specimens known; three being in the Doctor's collection. A few specimens of *Pogonocherus crinitus* were obtained by beating the under branches of the oak trees. Other species taken were—*Desmocerus californicus*, from elder (*Sambucus glauca*); *Cryptohypnus striatulus*, *Agrilus politus*, *Stereopalpus indutus*, and *Oberca quadricollis*, all from willow (*Salix*). Lepidoptera was not plentiful, but in spite of that a number of good specimens were taken. Collectors of Diptera, Hymenoptera and Hemiptera did not report their results, but in Hemiptera Dr. Blaisdell took from under a stone, two feet and a half below the surface, what probably will prove an undescribed species of the Enicocephalidae, a small but interesting family of which but two species are now known from America North of Mexico.

F. E. BLAISDELL, Secretary.



